



1 ccacgcgtccgcggacgcgtgggtcgcccacgcgtccggtggcggctgtcc
52 tgagccccgggcccagctgatgtccaggttagggcagcgttggggccccaat
103 cccagcctggaaggttgacttcacgtcgacccttctctgagtcttctgcc
154 actcactggcctggacaagacagcattggggagcccagaggctgcagggtgc
205 agtgaccactgctccccaggagctccctgctccttcttcccaggcaggaag
256 tggagctggacctgcctctggaaggaccATGCGCAGCACCACACTCCTGGC
1 M R S T T L L A
307 TCTGCTGGCACTGGTGCTGCTTTACTTGGTATCTGGGGCTCTAGTGTTCCA
9 L L A L V L L Y L V S G A L V F Q
358 GGCTCTGGAGCAGCCTCACGAGCAGCAGGCTCAGAAGAAAATGGATCATGG
26 A L E Q P H E Q Q A Q K K M D H G
409 CCGAGACCAGTTTCTGAGGGACCATCCCTGTGTGAGCCAGAAGAGCCTGGA
43 R D Q F L R D H P C V S Q K S L E
460 GGATTTTCATCAAGCTCCTGGTTGAAGCCCTGGGAGGGGGCGAAACCCAGA
60 D F I K L L V E A L G G G A N P E
511 AACCAGCTGGACCAATAGCAGCAACCACTCATCAGCTTGGAACCTGGGCAG
77 T S W T N S S N H S S A W N L G S
562 CGCCTTCTTTTTCTCGGGGACCATCATCACTACCATCGGCTATGGCAATAT
94 A F F F S G T I I T T I G Y G N I
613 AGTCTTACACACAGATGCCGGGCGTCTCTTTTGTATCTTCTATGCACTGGT
111 V L H T D A G R L F C I F Y A L V
664 GGGGATCCCACTGTTTCGGGATGCTGCTGGCGGGAGTCGGGGACCGGCTGGG
128 G I P L F G M L L A G V G D R L G
715 CTCCTCTCTGCGCCGGGGCATCGGCCACATCGAAGCAATCTTCTTGAAGTG
145 S S L R R G I G H I E A I F L K W
766 GCATGTGCCACCGGGGCTGGTGAGAAGTCTGTCCGCAGTGCTCTTCCTGCT
162 H V P P G L V R S L S A V L F L L
817 GATCGGCTGCCTGCTCTTTGTCCTCACTCCTACCTTCGTGTTCTCCTACAT
179 I G C L L F V L T P T F V F S Y M
868 GGAGAGCTGGAGCAAGFTAGAAGCCATCTACTTTGTTATAGTGA CTCTCAC
196 E S W S K L E A I Y F V I V T L T
919 CACTGTAGGCTTTGGCGATTATGTACCCGGCGATGGCACCGGGCAGAACTC
213 T V G F G D Y V P G D G T G Q N S

FIG.1a

970 TCCAGCCTACCAGCCGCTGGTGTGGTTCTGGATCTTGTTTGGCCTAGCCTA
230 P A Y Q P L V W F W I L F G L A Y

1021 CTTGCGCTCAGTGCTCACCACCATCGGCAACTGGTTGCGAGCAGTGTCCCG
247 F A S V L T T I G N W L R A V S R

1072 CCGAACTCGGGCAGAGATGGGTGGCCTAACGGCACAGGCTGCTAGCTGGAC
264 R T R A E M G G L T A Q A A S W T

1123 CGGCACAGTGACAGCGCGAGTGACCCAGCGAACTGGGCCCAGCGCCCCGCC
281 G T V T A R V T Q R T G P S A P P

1174 GCCAGAGAAGGAGCAACCACTCCTGCCCTCCTCTITGCCGGCACCGCCTGC
298 P E K E Q P L L P S S L P A P P A

1225 TGTTGTTGAGCCAGCCGGCAGGCCCGGCTCCCCTGCACCCGCAGAGAAGGT
315 V V E P A G R P G S P A P A E K V

1276 TGAGACTCCGTCCCCGCCACGGCCTCAGCTCTGGATTACCCCACTGAGAA
332 E T P S P P T A S A L D Y P S E N

1327 TCTGGCCTTCATCGACGAGTCCTCAGACACGCAGAGTGAGCGTGGCTGTGC
349 L A F I D E S S D T Q S E R G C A

1378 CCTGCCTCGGGCTCCTCGGGGTCGCCGCCGACCCAACCCATCCAAAAAGCC
366 L P R A P R G R R R P N P S K K P

1429 TTCCAGACCCCGGGGTCCTGGGCGACTCCGAGACAAGGCCGTGCCGGTGTA
383 S R P R G P G R L R D K A V P V *

1480 Ggggcaggatctcttgacccggatcccacgccagggctttcgctcttgctg
399

1531 atgctcaggcatgcttggttatttgaccaaagagccgtccctcttttggt
1582 ccacgtggttgcaaccctgacaggagtccagtgggttgccaaatgccaccgc
1633 tcttccctggctgggttcttcacatccaatcatttccaaagcccaccatcca
1684 aggccttctgcctcgctcccctgccggttttgaccctcacacctcacaact
1735 gtgcctcaaaacctgcaccaata

FIG.1b

TWIK	1	- - - - - M L Q S L A G S S C V R L V
TREK	1	M A A P D L L D P K S A A Q N S K P R L S F S S K P T V L A S R V E S D S A
TASK	1	- - - - -
TAAK	1	- - - - -
M1		
TWIK	15	E R H R S A W C F G F L V L G Y L L Y L V F G A V V F S S V E L P Y E D L L
TREK	39	I N V M K W K I V S T I F L V V V L Y L I I G A A V F K A L E Q P Q E I S Q
TASK	1	- M K R Q N V R T L A L I V C T F T Y L L V G A A V F D A L E S E P E L I E
TAAK	1	- - - M R S T T L L A L A L V L L Y L V S G A L V F Q A L E Q P H E Q Q A
M2		
TWIK	53	R Q E L R K L K R R F L E E H E C L S E Q Q L E Q F L G R V L E A S N Y G V
TREK	77	R T T I V I Q K Q T F I A Q H A C V N S T E L D E L I Q Q I V A A I N A G I
TASK	38	R Q R L L R - Q Q E L R A R Y N L S Q G G Y E E L E R V V L R - - L K P
TAAK	36	Q K K M D H G R D Q F L R D H P C V S Q K S L E D F I K L L V E A L G G G A
P1		
TWIK	91	S V L S - - - N A S G - N W N W D E T S A L F F A S T V L S T T G Y G H T V
TREK	115	I P L G - - - N S S N Q V S H W D L G S S F F A G T V I T T I G F G N I S
TASK	72	H K A G - - - - - V Q W R F A G S F Y F A I T V I T T I G Y G H A A
TAAK	74	N P E T S W T N S S N H S S A W N L G S A F F F S G T I T T I G Y G N I V
M2		
TWIK	125	P L S D G G K A F C I I Y S V I G I P F T L L F L T A V V Q R I T V H V T R
TREK	150	P R T E G G K I F C I I Y A L L G I P L F G F L L A G V G D Q L G T I F G K
TASK	101	P S T D G G K V F C M F Y A L L G I P L T L V M F Q S L G E R I N T L V R Y
TAAK	112	L H T D A G R L F C I F Y A L V G I P L F G M L L A G V G D R L G S S L R R
M3		
TWIK	163	- - R P V L Y F H I R W G F S K Q V V A I V H A V L L G F V T V S C F F F I
TREK	188	G I A K V E D T F I K W N V S Q T K I R I I S T I I F I L F G C V L F V A L
TASK	139	- - - L L H R A K K G L G M R R A D V S M A N M V L I G F F S C I S T L C I
TAAK	150	G I G H I E A I F L K W H V P P G L V R S L S A V L F L L I G C L L F V L T
P2		
TWIK	199	P A A V F S V L E D D W N F L E S F Y F C F I S L S T I G L G D Y V P G - E
TREK	226	P A V I F K H I E G - W S A L D A I Y F V V I T L T T I G F G D Y V A G - G
TASK	174	G A A A F S H Y E H - W T F F Q A Y Y Y C F I T L T T I G F G D Y V A L Q K
TAAK	188	P T F V F S Y M E S - W S K L E A I Y F V I V T L T T V G F G D Y V P G - D
M4		
TWIK	236	G Y N Q K F R E L Y K I G I T C Y L L L G L I A M L V V L E T F C E I H E L
TREK	262	S D I E Y L - D F Y K P V V W F W I L V G L A Y F A A V L S M I G D W L R V
TASK	211	D Q A L Q T Q P Q Y V A F S F V Y I L T G L T V I G A F L N L V V L R F M T
TAAK	224	G T G Q N S - P A Y Q P L V W F W I L F G L A Y F A S V L T T I G N W L R A

FIG.2a

TWIK	274	K K F R K M F Y V K K D K D E D Q - - - - - V H I E H D -
TREK	299	I S K K T K E E V G E F R A H A A E - - - - - W T A N V T A E F K E T R -
TASK	249	M N A E D E K R D A E H R A L L T R N G Q A G G G G G G S A H T T D T A S
TAAK	261	V S R R T R A E M G G L T A Q A A S - - - - - W T G T V T A R V T Q R T G
TWIK	298	- Q L S
TREK	330	- R R L
TASK	287	S T A A A G G G G F R N V Y A E V L H F Q S M C S C L W Y K S R E K L Q Y S
TAAK	293	P S A P P P E - - - - - K E Q P L L P S S L P A P P A V V E P A G R P G
TWIK	301	F S S I T D Q A A G - - - - - M K - - E - D Q K Q N E P F V A T Q S - S A C V
TREK	333	S V E I Y D K F Q R - - - - - A T S V K R K L S A E L A G N H N Q E L T P C M
TASK	325	I P M I I P R D L S - - - - - T S D T C V E Q S H S S P G G G R Y S D T P S
TAAK	324	S P A P A E K V E T P S P P T A S A L D Y P S E N L A F D E S S D T Q S E
TWIK	331	D G P A N H -
TREK	367	R T C L -
TASK	359	R R C L C S G A P R S A I S S V S T G L H S L S T F R G L M K R R S S V -
TAAK	362	R G C A L P R A P R G R R G P N P S K K P S R P R G P G R L R D K A V P V

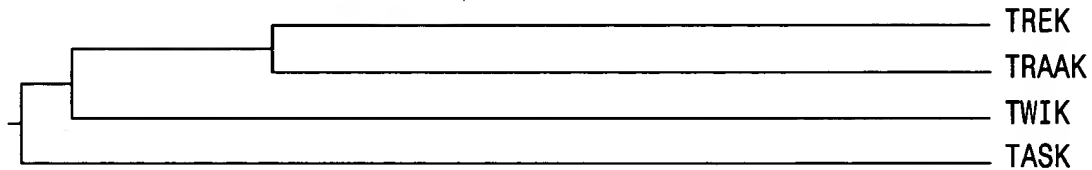


FIG.2b

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DLA Piper Rudnick Gray Cary US LLP (215) 656-3381

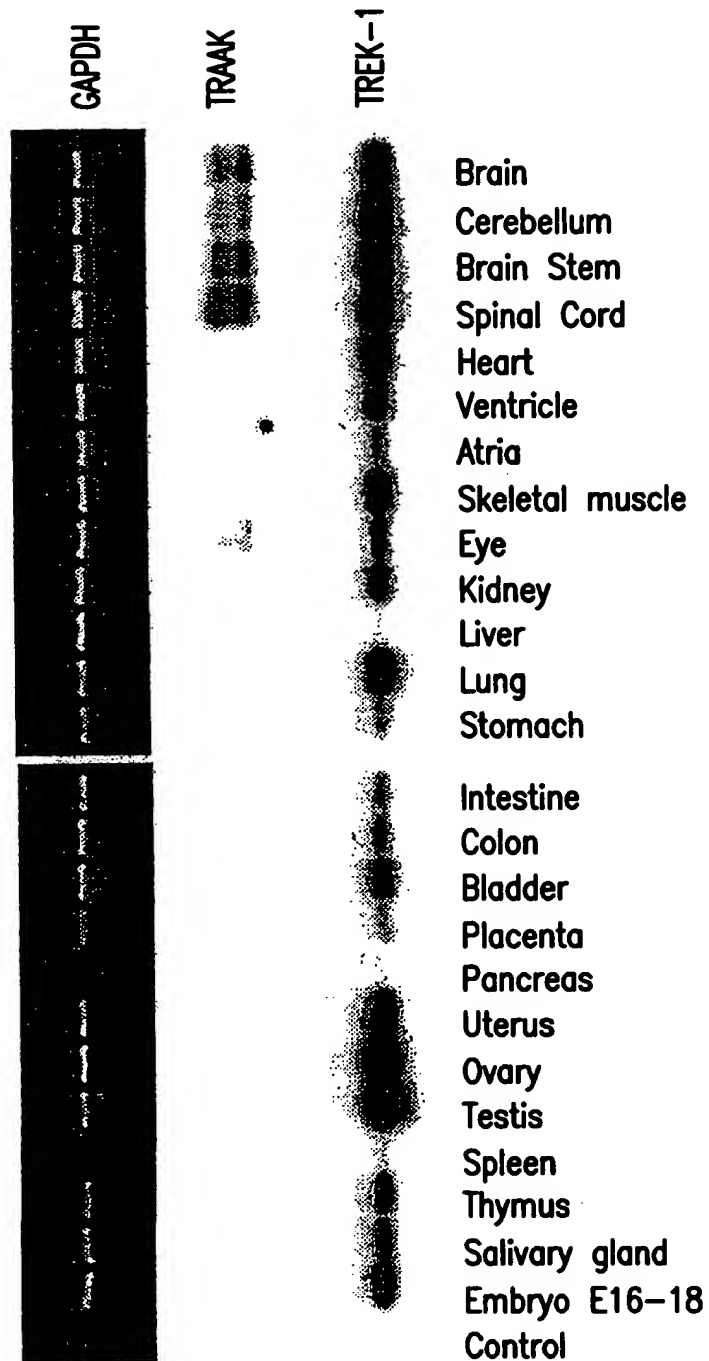


FIG.3

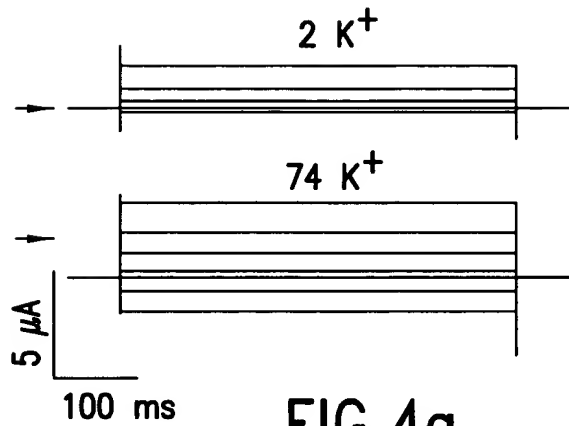


FIG. 4a

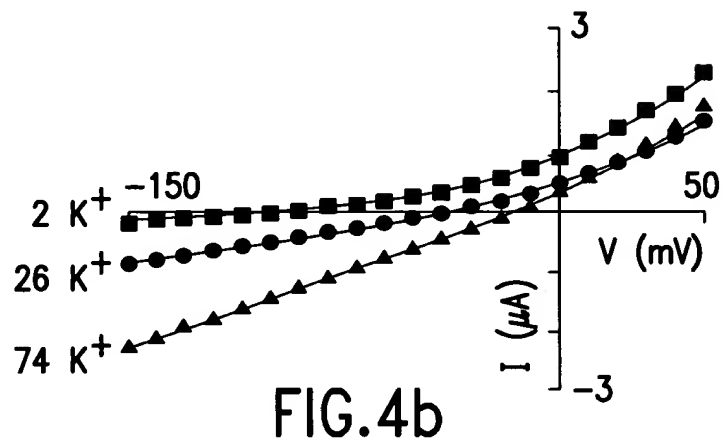


FIG. 4b

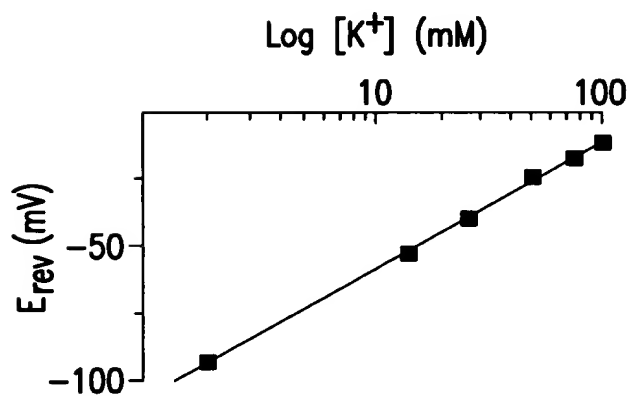


FIG. 4c

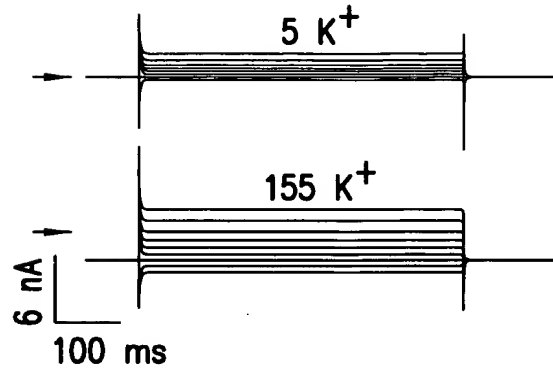


FIG. 4d

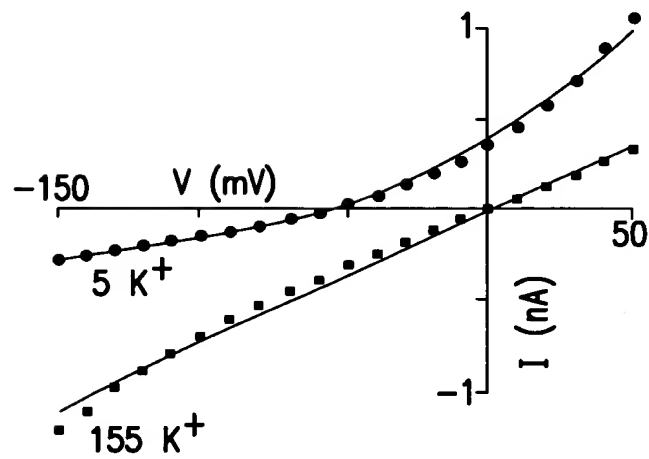


FIG. 4e

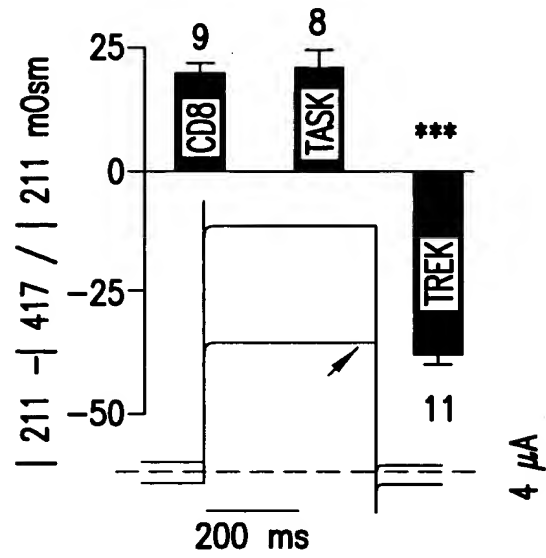


FIG. 5a

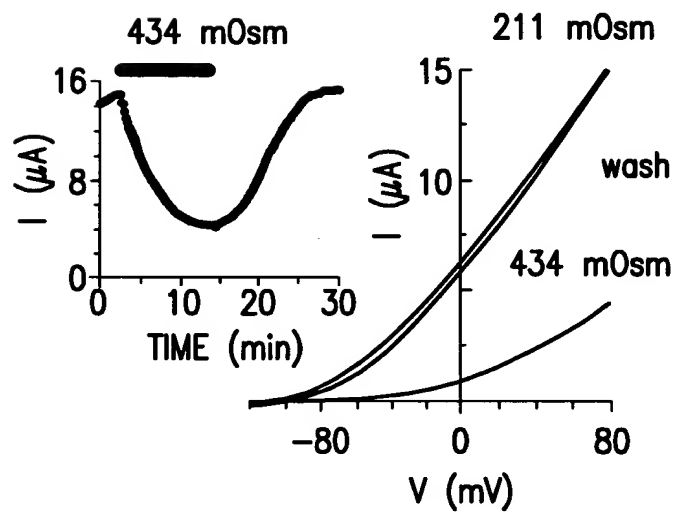


FIG. 5b

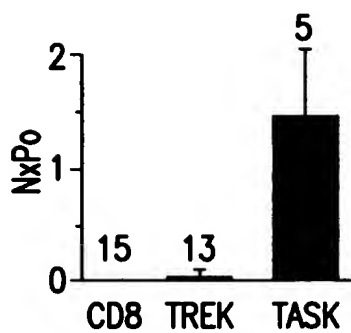


FIG.6a

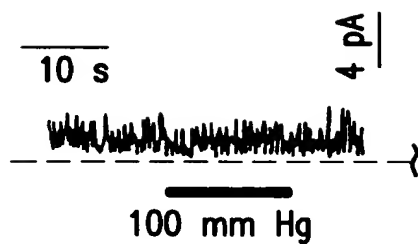


FIG.6b



FIG.6c

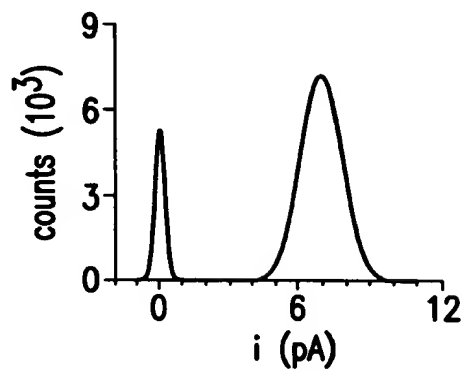


FIG.6d

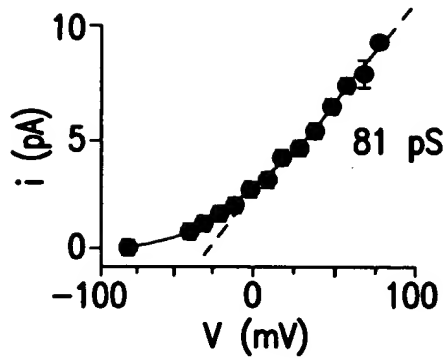


FIG. 6e

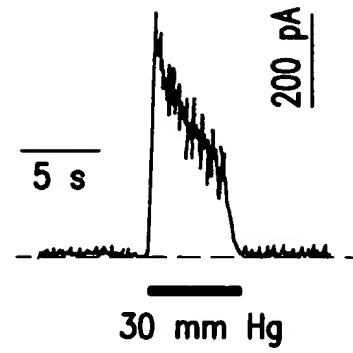


FIG. 6f

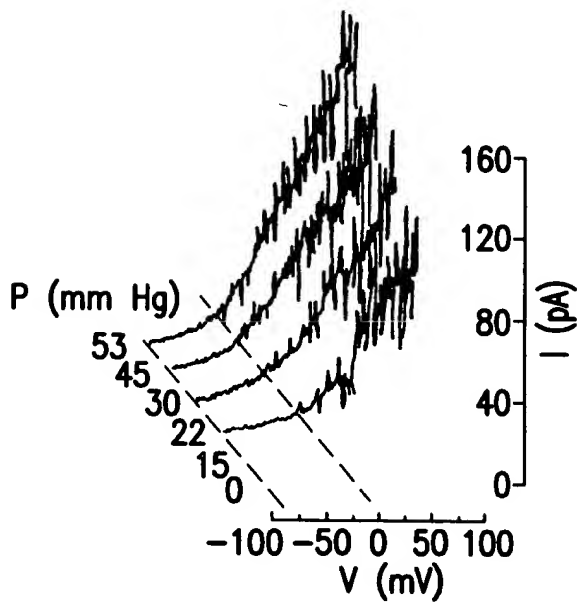


FIG. 6g

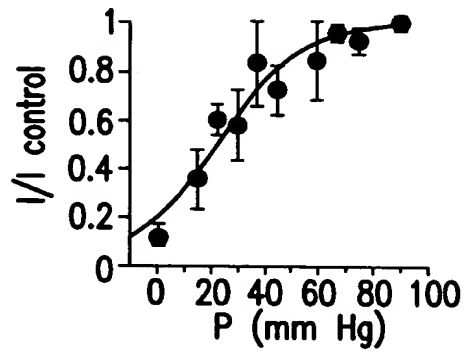


FIG. 6h

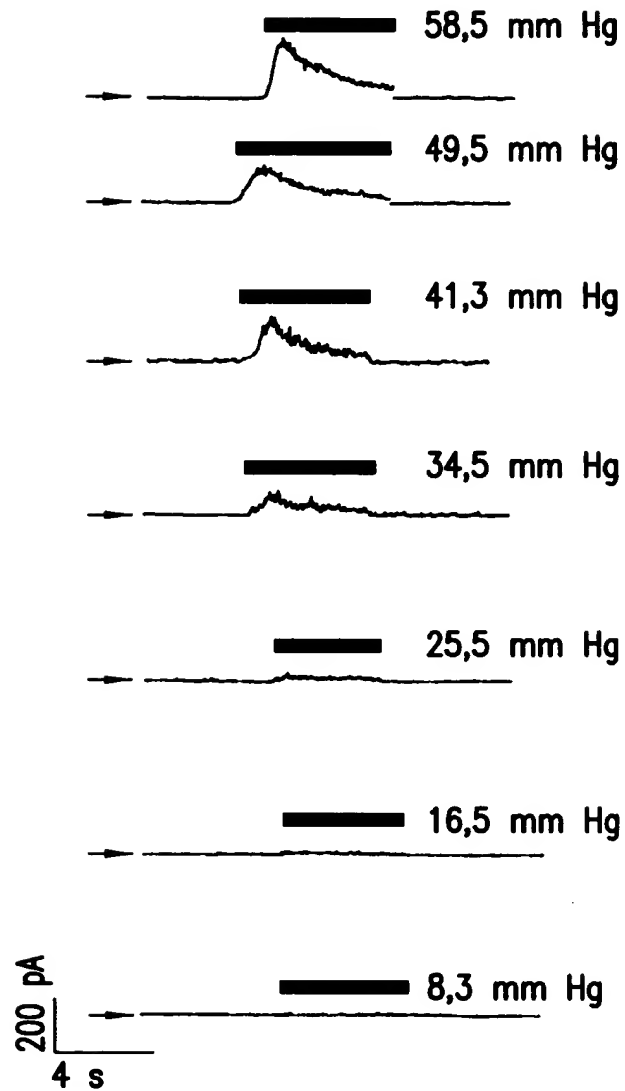


FIG.7

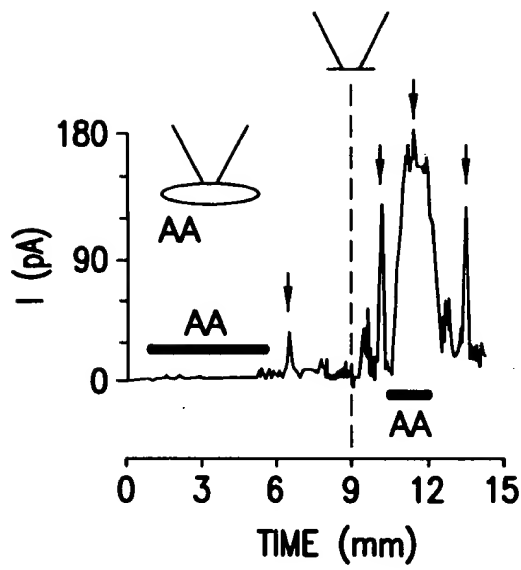


FIG. 8a

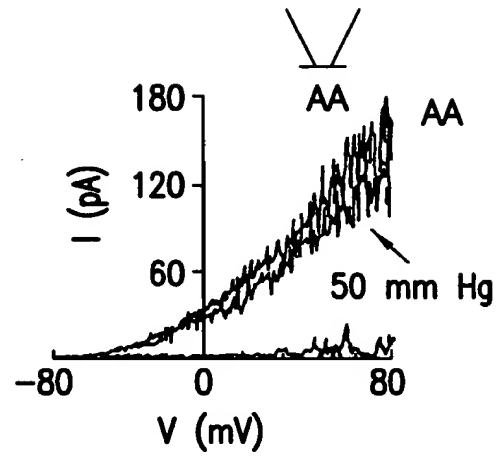


FIG. 8b

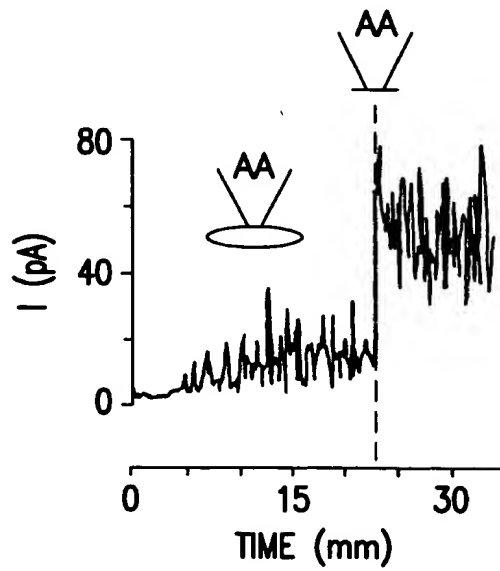


FIG. 8c

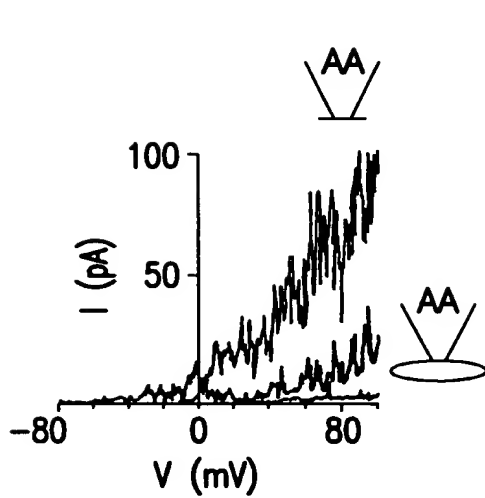


FIG. 8d

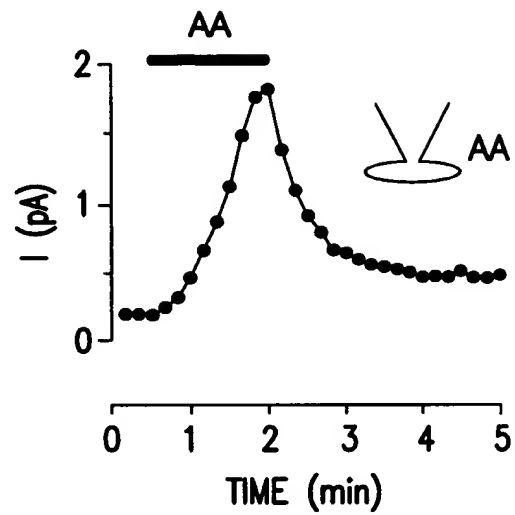


FIG. 8e

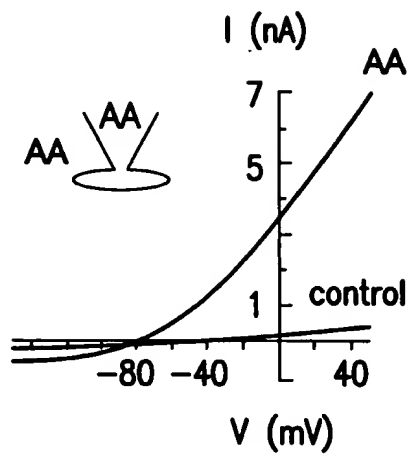


FIG. 8f

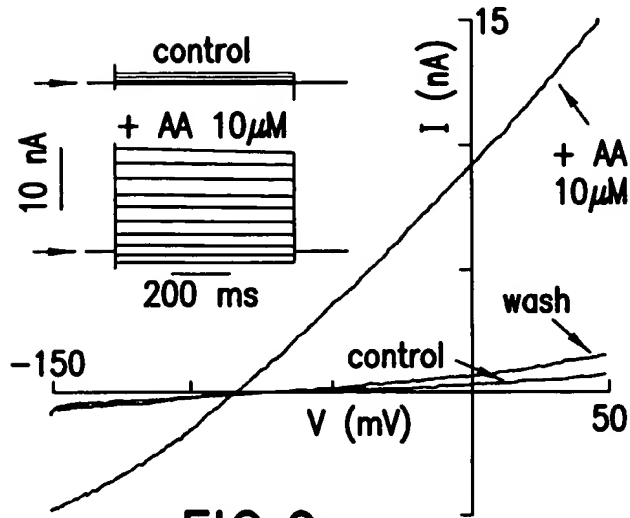


FIG. 9a

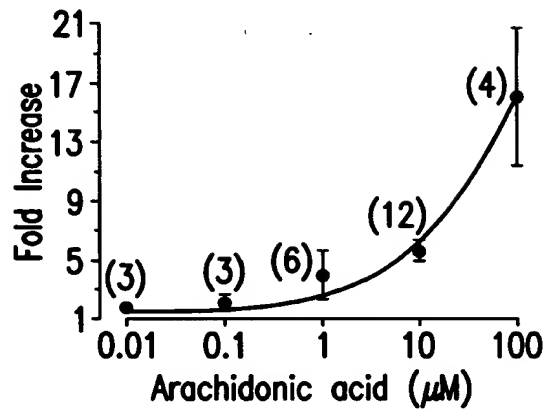


FIG. 9b

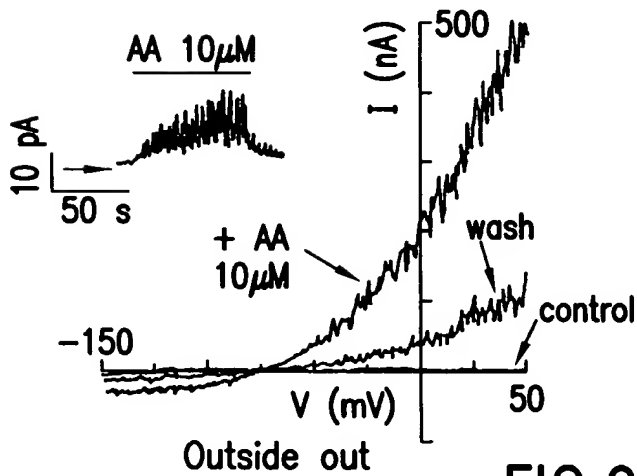


FIG. 9c

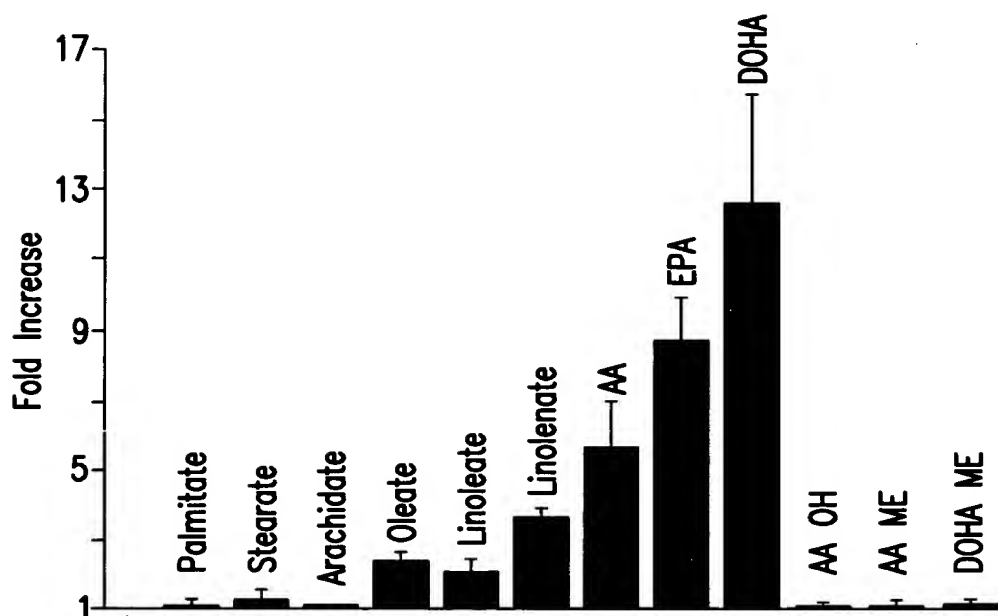


FIG.9d

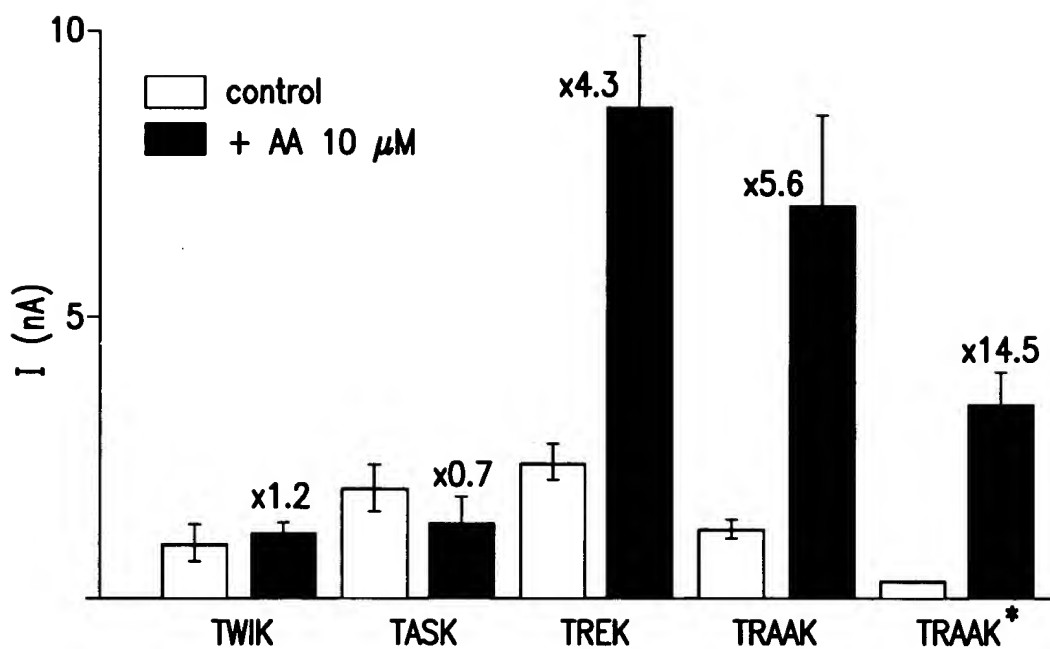


FIG.9e

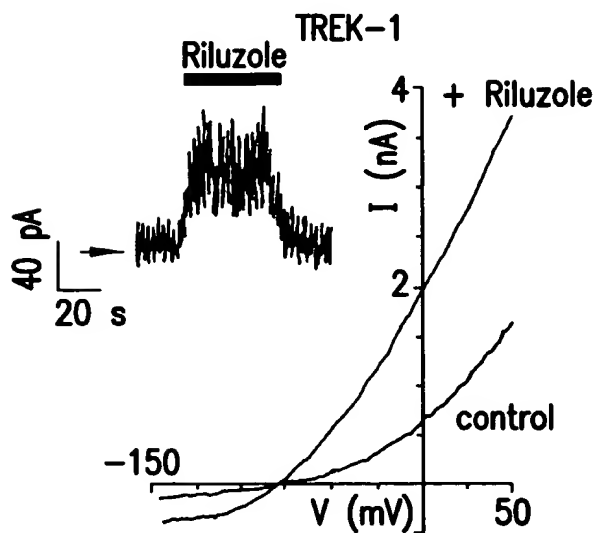


FIG.10a

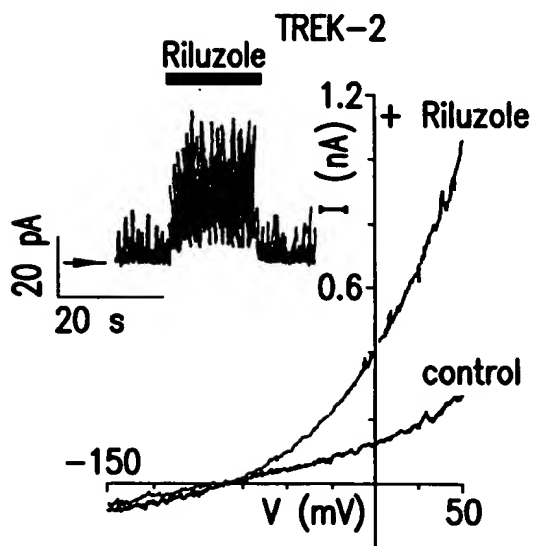


FIG.10b